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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,875	10/31/2001	Robert S. Condrashoff	NOR-998A	7297

37172 7590 03/10/2004

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EXAMINER

MOORE, KARLA A

ART UNIT PAPER NUMBER

1763

DATE MAILED: 03/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

Office Action Summary	Application No.		Applicant(s)	
	09/998,875		CONDRASHOFF ET AL.	
	Examiner		Art Unit	
	Karla Moore		1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-68 is/are pending in the application.
- 4a) Of the above claim(s) 1-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 38-45, 67 and 68 is/are rejected.
- 7) ☒ Claim(s) 46-66 is/are objected to.
- 8) ☒ Claim(s) 1-68 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>0202,0302</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-37, drawn to a system for plasma treating workpieces, classified in class 156, subclass 345.31.
 - II. Claims 38-68, drawn to a method for treating workpieces with a plasma, classified in class 216, subclass 67.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be use to practice another and materially different process, such as one involving a single workpiece.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Bill Allen on February 19, 2004, a provisional election was made without traverse to prosecute the invention of Group II, claims 38-68. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-37 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 38-45 and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,217,272 to Felsenthal et al. in view of U.S. Patent No. 5,110,249 to Norman.

7. With respect to claim 67, Felsenthal et al. disclose a method for treating workpieces with a plasma comprising: providing an infeed table (Figure 1, 18) adjacent a plasma treatment chamber (26); receiving automatically first workpieces serially, one at a time, onto the infeed table (column 4, rows 50-53); transferring automatically and in parallel the first workpieces from the infeed table into the plasma treatment chamber (column 6, rows 19-30); operating the plasma treatment chamber to plasma treat the first workpieces (column 6, rows 30-31); transferring automatically and in parallel the first workpieces from the plasma treatment chamber (column 6, rows 31-35). Also see Figure 2, and Figures 4a-4j.

8. However, Felsenthal et al. fails to teach the method comprising a step of transferring automatically and in parallel the first workpieces from the plasma treatment chamber onto an outfeed table.

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9. Norman teaches a method of treating workpieces comprising transferring automatically and in parallel a set of workpieces through a load chamber, any number of processing chambers and an unload chamber for the purpose of providing a more efficient use of process equipment and thereby lowering costs in the production of the workpieces (column 5, rows 49-52 and column 6, rows 32-51).

10. It would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made to have provided method steps comprising automatically and in parallel transporting workpieces through a load chamber, any number of processing chambers and an unload chamber in Felsenthal et al. in order to provide a more efficient use of process equipment and thereby lowering costs in the production of a set of workpieces as taught by Norman.

11. With respect to claims 38, 41, 44 and 68, Felsenthal et al. fails to teach discharging automatically the first workpieces serially, one at a time from the outfeed table.

12. Felsenthal et al. teach a method of loading the loading chamber that comprises serially loading workpieces into the loading chamber for the purpose of transferring a set of substrates from a carrier so that processing may commence.

13. With the combination of Felsenthal et al. and Norman as described above, it would have been obvious to one of ordinary skill in the art at the time the Applicant's invention was made that a similar unloading step of serially unloading a set of substrates one at a time from the unload chamber could be utilized to transport the treated substrates from the outfeed table of the processing apparatus to a carrier.

14. With respect to claims 39 and 40, the first workpieces and the second workpieces are each stored in the treatment chambers and the infeed and outfeed tables in parallel before proceeding to the next step, as described above.

15. With respect to claim 42, processing and transporting may be done simultaneously in Felsenthal et al. and Norman as described above.

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16. With respect to claim 43 and 45, Norman teaches that continuous processing (introducing additional sets of workpieces as others advance through the apparatus) makes more efficient use of the process equipment and lowers costs.

Allowable Subject Matter

17. Claims 46-62 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

18. The following is a statement of reasons for the indication of allowable subject matter:

19. The prior art of record fails to teach or fairly suggest the step of automatically receiving first workpieces or receiving second workpieces further comprises: receiving one of the first or second workpieces onto the infeed table; moving one of the first (claim 46) or second (claim 50) workpieces in a first direction toward a discharge end of the infeed table; **moving the infeed table to a position aligning a portion of the infeed table with a workpiece receiving location; receiving another of the first or second workpieces onto the infeed table ; and moving the other of the first or second workpieces in the first direction.**

20. In addition, the prior art of record fails to teach or fairly suggest wherein after transferring the first workpieces on the outfeed table, the method further comprises: moving one of the first workpieces in a first direction towards a discharge end of the outfeed table; transferring one of the first workpieces from the outfeed table; **moving the outfeed table to a position aligning another of the first workpieces with a workpiece discharge position; moving the other of the second workpieces toward the discharge of the outfeed table; and transferring the other of the second workpieces from the outfeed table (claim 54).**

21. The prior art of record also fails to teach or fairly suggest the method further comprising: **lowering first pusher elements to a location immediately adjacent ends of respective second workpieces on the infeed table; lowering second pusher elements to a location immediately adjacent ends of the respective first workpieces in the plasma treatment chamber; moving the second pusher element in the first direction towards the outfeed**

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table to move the first workpieces from the plasma treatment table onto the outfeed table; and moving the first pusher element in the first direction towards a discharge end of the infeed table to move the second workpieces from the infeed table into the plasma treatment chamber (claim 58).

22. In addition to the cited prior art not disclosing, teaching or fairly suggesting the above limitations, no other reference was found which supplied suggested the limitations and motivations for combining them with the prior art of record.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 8:30am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on 571.272.1439. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

km
5 March 2004


Parviz Hassanzadeh
Primary Examiner
Art Unit 1763